By James L. Sands

THE MIXED PRAIRIE of the high plains region in southwestern Kansas, southeastern Colorado, western Oklahoma and its southern extension, the Llano Estacado in eastern New Mexico and northwestern Texas, encompasses the ancestral range of the Lesser Prairie Chicken (*Tympanuchus pallidicinctus*). This prairie grouse, approximately the size of a frying-size domestic chicken, is a distinctive representative of its habitat.

During its heyday, before the advent of civilization and the herds of "the white man's buffalo," the Lesser Prairie Chicken shared its extensive domain with the Black-tailed Prairie Dog and the Black-footed Ferret. Like the prairie dog and the ferret, it has been placed on the list of rare or endangered wildlife species by the U. S. Bureau of Sport Fisheries and Wildlife (Resource Publication 34, 1966).

Formerly abundant throughout its original range, the species now occurs only locally. The drastic reduction of its original habitat through excessive grazing, drought, and unfavorable agricultural practices has been the downfall of once extensive populations.

In New Mexico, the Lesser Prairie Chicken originally ranged from Union County in the northeastern portion of the state south through the eastern tier of counties to the New Mexico–Texas line. Portions of its range extended west as far as the Pecos River. J. Stokley Ligon in "New Mexico Birds . . ." (1961: p. 90) states, "In the Fort Sumner area, distribution included the sandhill, tall grass country across the Pecos, to approximately 30 miles west of the river."

Current range in New Mexico is limited to a few counties along the eastern border of the state. The largest populations are located in Roosevelt and northern Lea Counties. A few populations also occur in eastern Chaves County and portions of De Baca, Quay, and Curry Counties. A small remnant possibly exists in eastern Harding County although recent observations are lacking.

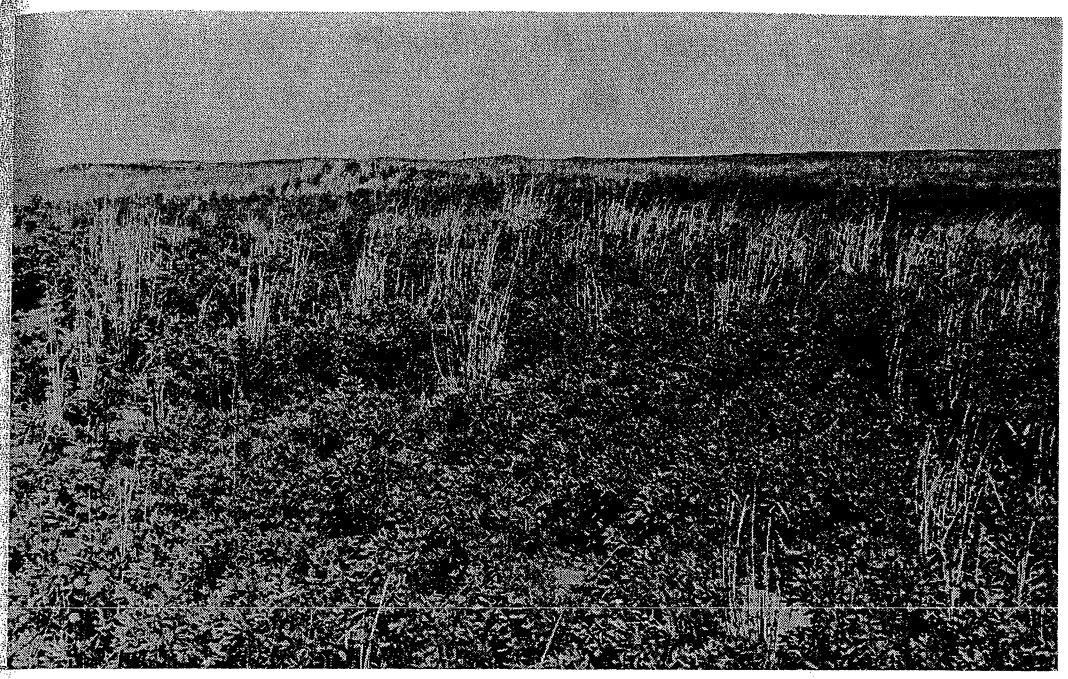
Originally the Lesser Prairie Chicken ranged throughout the Panhandle of Texas. Jackson and DeArment (*Jour. Wildlife Management*, 27, 1963: p. 733) state, "The exact limits of the original range of the lesser prairie chicken cannot be clearly defined . . ." because it "may have been only a winter migrant in the southernmost part of its range in Texas." These authors place the current populations of Lesser Prairie Chickens in small, localized areas of northwest Texas, with the bulk of the population occurring in Wheeler, Hemphill, and Lipscomb Counties. "A few are found along the Texas–New Mexico line from Andrews to Lamb County . . ." (*op. cit.*, p. 734). The current population in the Texas Panhandle is estimated at 3000 birds.

In Colorado, early-day Lesser Prairie Chicken populations "were undoubtedly highest within the occupied range south of the Arkansas River" (Baca and Prowers Counties) and ". . . probably also occurred north of the Arkansas River into Kiowa, Cheyenne, and Lincoln counties" (Hoffman, *Jour. Wildlife Management*, 27, 1963: p. 726).

The currently occupied range of the Lesser Prairie Chicken in Colorado is concentrated in Baca and Prowers Counties. The existence of a small resident population in these counties "became known during the spring of 1959, when three booming grounds with a total of six cocks were located . . ." (*op. cit.*, p. 730). Apparently, small remnant populations had survived in isolated pockets of suitable habitat.

Recent information on the status of the Lesser Prairie Chicken in Kansas indicates that populations have changed little over the last twenty years. The highest populations occur in portions of Finney, Kearny, Morton, Stevens and Gray Counties (Marvin Schwilling, personal correspondence, 1967). Lower populations are reported to occur in about 13 additional counties in southwestern Kansas. Five booming ground routes run in better prairie chicken range for the past three years (1964-1966) indicated 3 to 4 cocks per section. A population estimate by counties in 1963 indicated approximately 10,000 to 15,000 birds.

In Oklahoma, Copelin (M. S. Thesis, Okla. State Univ., 1958) states "The lesser prairie chicken still is widespread throughout western Oklahoma. It is known to occur in at least 12 contiguous counties. The density of this bird now appears low as compared with former known densities." On one area in 1957 the density was 3.5 males per square mile compared to 37 males per square mile in 1932. "These low densities are coincident with a very severe drought, overgrazing, and a low phase in the grouse cycle." Spring census counts for Lesser Prairie Chickens in 1961



Typical Shin Oak–Big Bluestem Lesser Prairie Chicken Habitat, Roosevelt County, N. Mex., April 1967. *Photograph by James L. Sands, New Mexico Department of Game & Fish.*

indicated approximately 13 birds per square mile on one study area (Jones, *Jour. Wildlife Management,* 27, 1963: p. 763).

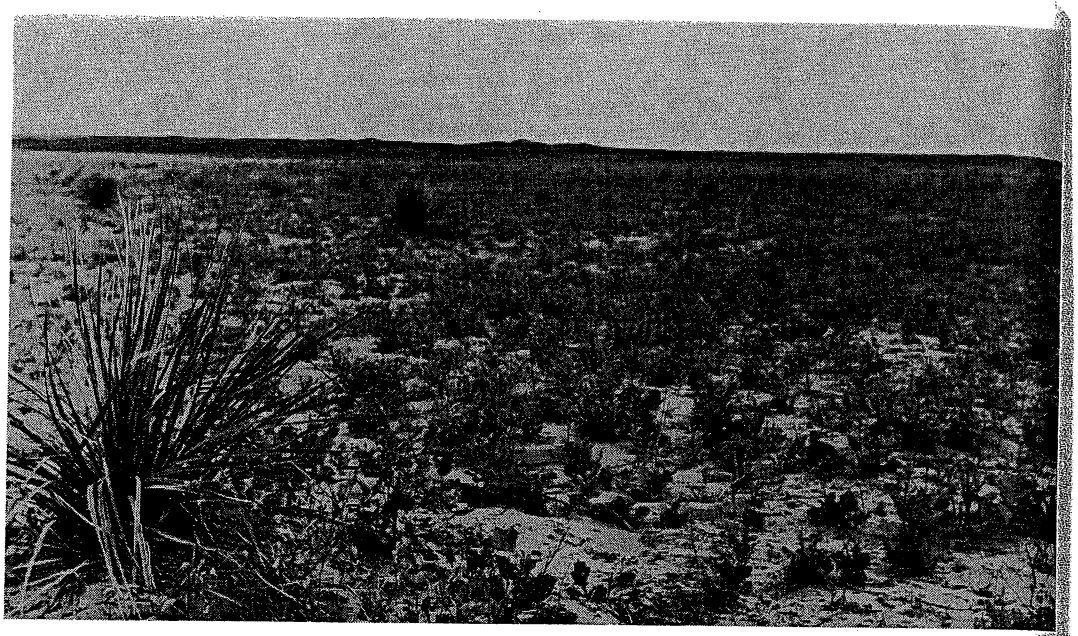
Proper land management is the key to proper prairie chicken management. To practice good land management one must have control over the uses of that land. All of the states supporting populations of Lesser Prairie Chickens have recognized the need for and importance of habitat management.

Colorado has established and improved two separate 160-acre tracts to provide nesting and brood-rearing cover for the Lesser Prairie Chicken (Hoffman, *Jour. Wildlife Management,* 27, 1963: p. 732). Work included fencing to exclude livestock, reseeding, water development and tree and shrub plantings. This work was a cooperative project of the Colorado Department of Game, Fish and Parks, the U. S. Forest Service and organized sportsmen. It is hoped that the species will increase and continue to spread with improvement in range management practices.

Overgrazing in Oklahoma continues to be a problem, but the trend is toward improved grassland management. The trend toward brush control, however, does not appear to be as favorable (Copelin, M. S. Thesis, Okla. State Univ., 1958). Studies by the Oklahoma Cooperative Wildlife Research Unit have led the way toward a better understanding of the habitat requirements of the Lesser Prairie Chicken (Jones, *Jour. Wildlife Management,* 27, 1963: 757-778).

In Kansas, range condiitons are stable or improving. The 107,000-acre National Grasslands in Morton County, administered by the U. S. Forest Service has great potential for Lesser Prairie Chickens (Hamerstrom and Hamerstrom, *Wilson Bull.,* 73, 1961: p. 290). The bird appears to be holding its own in Kansas. Its future "appears to be about what it has been for the last 20 years" (Schwilling, personal correspondence, 1967).

The future of the Lesser Prairie Chicken in Texas is "not very promising" (Jackson and DeArment, *Jour. Wildlife Management,* 27, 1963: p. 737). These authors sound a warning in the following manner. "In the spring months of 1957, the 6,560 acre Site II study area in Wheeler County was subjected to an aerial application of the hormone-type chemical 2, 4, 5-T. The objective was to control or eliminate brush and weeds. Although only a 25 percent kill was accomplished, acorn production was prevented for 2 years. The loss of a key supply of winter food could not have been other than an adverse influence on



Typical Lesser Prairie Chicken Booming Ground, Shin Oak and Yucca Habitat, Roosevelt County, N. Mex., April 1967. *Photograph by James L. Sands, New Mexico Department of Game & Fish.*

prairie chickens. Its effects were apparent in a lower count in the 1959 census." They further stated that the loss of woody cover followed by heavy grazing, resulted in plant communities unsuitable for prairie chickens.

The current population of Lesser Prairie Chickens in New Mexico is estimated at about 8000 to 10,000 birds. During the peak population years of 1949 and 1961, the birds probably numbered about 40,000 to 50,000. Periodic drought and normal population declines seem to be responsible for the fluctuations in numbers during this period.

Since 1938, New Mexico has acquired through purchase, lease, or trade, over 23,000 acres of prairie chicken habitat. Use by livestock has either been eliminated or reduced depending upon local circumstances.

The increase of prairie chickens in New Mexico is due in part to the return of large blocks of land to prairie conditions through the Soil Bank program.

Prairie chicken management in New Mexico is geared to land acquisition or control and habitat management. Recent agreements between the New Mexico Department of Game and Fish and the U. S. Bureau of Land Management have halted brush spraying on state and federal lands within the occupied range of the Lesser Prairie Chicken. The Caprock Lesser Prairie Chicken Management Area has been established (1966), whereby both agencies agreed "to practice those forms of land and multiple use resource management practices that will benefit prairie chickens. . . ." The great need in New Mexico is for the establishment of agreements with private landowners concerning brush control projects on their lands.

The acquisition, control and management of large blocks of suitable prairie chicken habitat in New Mexico, has paid off as a management technique. Limited hunting has been allowed since 1948 and has continued periodically through 1966. Within this 19-year period, approximately 15,000 birds have been harvested with no noticeable effect on the population.

Although the Lesser Prairie Chicken is considered rare in many areas, the situation is by no means hopeless. New Mexico and other states have shown that substantial populations of prairie chickens can exist if proper land management is practiced by all land users. Admittedly, extensive land acquisition and habitat improvement takes time and money, but isn't the preservation of such a bird as the Lesser Prairie Chicken worth it? I think so, and what's more important, so do an increasing number of other people.